

Grammaticalization within *Dasu*-compounds in Japanese

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1. Introduction

This paper will discuss the hypothesis that the verbal morpheme *dasu* [literally ‘be out; come out; begin; give; serve,’ and so forth] within lexical compounds in Japanese undergoes a grammaticalization process. This analysis is supported by the discussion with respect to the grammaticalization of another verbal morpheme *komu* within lexical compounds in Takahashi (2009).

Kageyama (1993, 1996) suggests that there are exceptions to the Transitivity Harmony Principle regarding lexical compounds in Japanese. The rule points out that verbal morphemes in lexical compounds are amalgamated according to certain regulations based on argument structure. One of the regulations indicates that a transitive verb, such as *dasu*, can be combined with an unergative verb or another transitive verb, but not with an unaccusative verb. Some of the lexical compounds with the morpheme *dasu* are exceptions to these amalgamation processes. This paper assumes that the *dasu*-compounds does not follow the Transitivity Harmony Principle because the morpheme *dasu* undergoes grammaticalization within its lexical compounds. In order to prove this assumption, this paper will investigate the syntactic and semantic properties of this morpheme within

its compounds.

First, Section 2 will analyze the data with *dasu*-compounds by examining the transitivity and unaccusativity of *dasu* itself and its compounds. In Section 3 we will investigate the interpretations and aspectuality of *dasu*. Section 4 will show the Lexical Conceptual Structures (LCSs hereafter) of the lexical compounds with *dasu*. Section 5 will discuss whether the morpheme *dasu* in lexical compounds can be treated as a suffix-like bound verb that indicates directionality like *komu* does as discussed in Takahashi (2009). Finally, Section 6 will summarize this paper.¹

2. Syntactic properties of *dasu*-compounds

This section will examine *dasu*-compounds that provide evidence that some lexical compounds in Japanese undergo grammaticalization in terms of their syntactic behaviors.

The verbal morpheme *dasu* can either be a free morpheme or a bound morpheme. When it is used as a free morpheme, it normally behaves as a transitive verb. There are many interpretations of *dasu*, such as ‘give; utter; make; be out; come out; hold out; put out; stick out; expose; show; take out; produce; send; post; mail; pay; contribute; donate; invest; serve; hand in; send in; publish; issue; open; begin; start; operate (e.g., a machine); turn on (e.g., gas); make [have] speed,’ and so forth. Some examples are shown below:

- (1) a. Taro-ga piano-no oto-o das-u.
Taro-Nom piano-Gen sound-Acc emit-Pre
‘Taro emits the sound of a piano.’
b. Taro-ga hon-o das-u.
Taro-Nom book-Acc publish-Pre
‘Taro publishes a book.’

- c. Taro-ga tegami-o das-u.
Taro-Nom letter-Acc send-Pre
'Taro sends a letter.'

Although this morpheme has many interpretations, it generally denotes one of two main interpretations when it is used in compounds. They are (1) 'be out; come out' and (2) 'begin.' The following examples show *dasu*-compounds with the meaning of 'be out; come out.'

- (2) transitive verb + *dasu* [transitive]
 - a. nuke-das-u
slip.out-dasu-Pre
'get [sneak; slip] out; pass; get ahead (e.g., of a person)'
 - b. omoi-das-u
think-dasu-Pre
'remember; recall; recollect; be reminded of'
- (3) unergative verb + *dasu* [transitive]
 - a. tobi-das-u
fly-dasu-Pre
'fly out [away]; jump [rush; run] out of; run away from'
 - b. nige-das-u
escape-dasu-Pre
'run away; flee; escape; sneak away; evade [shirk]; back out (of)'
- (4) unaccusative verb + *dasu* [transitive]
 - a. shimi-das-u
soak-dasu-Pre
'ooze [seep] out'
 - b. nagare-das-u
flow-dasu-Pre
'flow out; leak (out); seep'

Before we examine the syntactic properties of *dasu*-compounds in more details, let us consider those with the meaning of 'begin.' It is important to notice that *dasu* with this interpretation creates syntactic compounds rather than lexical compounds. Some diagnostic tests, such as the ones associated

with constituency, subject honorification, and passivization, can distinguish syntactic compounds from lexical compounds as discussed in Kageyama (1993). These tests show whether or not components in compounds can be syntactically independent. The data below shows that *dasu*-compounds with the meaning of ‘begin’ belong to syntactic compounds:

(5) Do-substitution tests with *dasu*-compounds with the meaning of ‘begin’:

a. Transitive *kaku* ‘write’ + *dasu*

Taro-ga tegami-o kaki-dashi-ta.
Taro-Nom letter-Acc write-begin-Past

Soshite Hanako-mo soo-shi-dashi-ta.
and Hanako-also so-do-begin-Past

‘Taro began to write a letter. And Hanako-did so, too.’

b. Unaccusative *naku* ‘cry’ + *dasu*

Taro-no akachan-ga naki-dashi-ta.
Taro-Gen baby-Nom cry-begin-Past

Soshite Hanako-no akachan-mo soo-shi-dashi-ta.
and Hanako-Gen baby-also so-do-begin-Past

‘Taro’s baby began to cry. And, Hanako’s baby began to cry, too.’

c. Unergative *hashiru* ‘run’ + *dasu*

Taro-ga hashiri-dashi-ta.
Taro-Nom run-begin-Past

Soshite Hanako-mo soo-shi-dashi-ta.
and Hanako-also so-do-begin-Past

‘Taro began to run. And, Hanako began to run, too.’

(6) Honorification test with *dasu*-compounds with the meaning of ‘begin’:

- a. Sensei-ga tegami-o kaki-dashi-ta.
teacher-Nom letter-Acc write-begin-Past
‘The teacher began to write a letter.’

- a'. Sensei-ga tegami-o o-kaki-ni-nari-dashi-ta.
teacher-Nom letter-Acc Hon-write-Dat-become-begin-Past
'The teacher began to write a letter.'
- b. Sensei-no akachan-ga naki-dashi-ta.
teacher-Gen baby-Nom cry-begin-Past
'The teacher's baby began to cry.'
- b'. Sensei-no akachan-ga o-naki-ni-nari-dashi-ta.
teacher-Gen baby-Nom Hon-cry-Dat-become-begin-Past
'The teacher's baby began to cry.'
- c. Sensei-ga hashiri-dashi-ta.
teacher-Nom run-begin-Past
'The teacher began to run.'
- c'. Sensei-ga o-hashiri-ni-nari-dashi-ta.
teacher-Nom Hon-run-Dat-become-begin-Past
'The teacher began to run.'

(7) Passivization tests with *dasu*-compounds with the meaning of 'begin':

- a. *kaki-das-u* 'begin to write' -> *kak-are-das-u* 'begin to be written'
write-begin-Pre write-Pass-begin-Pre
- b. *naki-das-u* 'begin to cry' -> *nak-are-das-u* 'begin to be cried'
cry-begin-Pre cry-Pass-begin-Pre
- c. *hashiri-das-u* 'begin to run' -> *hashi-rare-das-u* 'begin to be run'
run-begin-Pre run-Pass-begin-Pre

The above tests illustrate that *dasu*-compounds with the meaning of 'begin' have to be treated as syntactic compounds rather than lexical compounds. Therefore, attention needs to be paid to which interpretation each *dasu*-compound holds. Since we focus on lexical compounds in this paper, we will deal with only *dasu*-compounds that have the other meaning 'be out; come out.'

As mentioned previously, Kageyama (1993, 1996) argues that some of the *dasu*-compounds violate the Transitivity Harmony Principle. *Dasu* is typically a transitive verb, and the combination of an unaccusative morpheme and a transitive *dasu* should not be allowed under the principle. More

than 120 samples of *dasu*-compounds exist (Daijirin 2005), and we selected nine cases below in which the first verbs (V1s hereafter) are unaccusative. Based on Kageyama's analysis, it might be assumed that these cases do not comply with the principle:

- (8) a. shimi-das-u
soak-dasu-Pre
'ooze [seep] out'
- b. Chi-ga hootai-kara shimi-das-u.
blood-Nom bandage-from soak-dasu-Pre
'blood oozes [seeps] out from the bandage.'
- (9) a. seri-das-u
compete-dasu-Pre
'push (a thing) out; rise out of a trap door; stick out; project; protrude'
- b. Hon-ga tana-kara seri-das-u.
book-Nom shelf-from compete-dasu-Pre
'Books sticks out from the shelf.'
- (10) a. tobi-das-u (unaccusative *tobu*)²
project-dasu-Pre
'project; protrude'
- b. Kugi-ga ita-kara tobi-das-u.
nail-Nom board-from project-dasu-Pre
'The nail is projected from the board.'
- (11) a. nagare-das-u
flow-dasu-Pre
'flow out; leak (out); seep'
- b. Kawa-ga yama-kara nagare-das-u.
river-Nom mountain-from flow-dasu-Pre
'The river flows out from the mountain.'
- (12) a. waki-das-u
gush-dasu-Pre
'gush (out); flow'
- b. Izumi-ga yama-kara waki-das-u.
spring-Nom mountain-from gush-dasu-Pre
'The spring gushes out from the mountain.'

- (13) a. uki-das-u
float-dasu-Pre
'appear clearly'
- b. Moyou-ga kami-kara uki-das-u.
design-Nom paper-from float-dasu-Pre
'The design appears clearly from the paper.'
- (14) a. fuki-das-u
spout-dasu-Pre
'spout; spurt out; bud; put forth buds [shoots]'
- b. Onsen-ga yama-kara fuki-das-u.
spring-Nom mountain-from spout-dasu-Pre
'The spring spouts from the mountain.'
- (15) a. moe-das-u
bud-dasu-Pre
'bud; put forth buds [shoots]'
- b. Shinme-ga kigi-kara moe-das-u.
new.bud-Nom trees-from bud-dasu-Pre
'New buds come from trees.'
- (16) a. fuki-das-u (This example is different from *fuki-dasu* in (14).)
blow-dasu-Pre
'burst out laughing'
- b. John-ga kyuuni fuki-dashi-ta.
John-Nom suddenly blow-dasu-Past
'John suddenly burst out laughing.'

As we can see in the data above, all *dasu*-compounds occur with *kara* 'from' except the data in (16). The data in (16) might involve a metaphorical change of the meaning of the V1 *fuku*, which is a semantic change from 'blow' to 'start laughing.' Possibly, that is why *fuki-dasu* 'burst out laughing' does not take *kara* 'from.' Although we can see the exception, Kageyama (1993:137) suggests that *dasu* generally denotes a condition in which an object moves out from the inside to the outside along with *kara* 'from' and it represents the concept of 'OUT' in its LCS.

Now, we will examine whether the unaccusative V1s in *dasu*-compounds

from (8) to (11) keep their transitivity or unaccusativity after the amalgamation with *dasu*. First, we apply the numeral quantifier test (Miyagawa 1989; Tsujimura 1996:270):

- (17) Chi-ga hootai-kara takusan shimi-das-u.
 blood-Nom bandage-from much soak-dasu-Pre
 ‘Blood oozes [seeps] out from the bandage a lot.’
 (*Takusan* ‘much’ connects with *chi* ‘blood’ not with *hootai* ‘bandage.’)

- (18) Hon-ga tana-kara itsutsu seri-das-u.
 book-Nom shelf-from five compete-dasu-Pre
 ‘The five books stick out from the shelf.’
 (The number *itsutsu* ‘five’ connects with *hon* ‘book’ not with *tana* ‘shelf.’)

- (19) Kugi-ga ita-kara mittsu tobi-das-u. [unaccusative *tobu*]
 nail-Nom board-from three fly-dasu-Pre
 ‘The three nails project from the board.’
 (The number *mittsu* ‘three’ connects with *kugi* ‘nail’ not with *ita* ‘board.’)

- (20) Kawa-ga yama-kara mittsu nagare-das-u.
 river-Nom mountain-from three flow-dasu-Pre
 ‘The three rivers flow out from the mountain.’
 (The number *mittsu* ‘three’ connects with *kawa* ‘river’ not with *yama* ‘mountain.’)

All of the data above show that numerals connect with the subject in the sentences and these *dasu*-compounds does retain the unaccusativity of V1s above.

However, with the test on resultative construction, it is difficult to see that the resultative phrases describe a state as a result of some processes denoted by the compounds.

- (21) Chi-ga hootai-kara takusan shimi-dashi-ta.
 blood-Nom bandage-from much soak-dasu-Past
 ‘Blood oozed [seeped] out from the bandage a lot.’

- (22) Hon-ga tana-kara ookiku seri-dashi-ta.
 book-Nom shelf-from widely compete-dasu-Past
 ‘The books stuck far out from the shelf widely.’

- (23) Kugi-ga ita-kara ookiku tobi-dashi-ta. [unaccusative *tobu*]
 nail-Nom board-from widely fly-dasu-Past
 ‘The nail projected far out from the board.’
- (24) Kawa-ga yama-kara ikioiyoku nagare-dashi-ta.
 river-Nom mountain-from powerfully flow-dasu-Past
 ‘The river flowed out from the mountain powerfully.’

According to John Haig (2006 personal communication), these resultative phrases might not be descriptive with respect to the subject. For instance, in (21), the blood did not become “a lot” as a result of soaking. Neither the book in (22) nor the nail in (23) became big as a result of the action which were described by these compounds. Since we have these results, it is might be safe to assume that these *dasu*-compounds remain as unaccusatives even after the unaccusative V1s and a transitive verb *dasu* combines.

Finally, in addition to the unaccusativity in *dasu*-compounds, we will analyze *dasu*-compounds in terms of their volitionality. Here, we apply the *te-morau* ‘have (a person) to do (a thing)’ test to the *dasu*-compounds from (8) to (11) above. Along with this test, we can examine how much the morpheme *dasu* affects syntactic properties of the V1s in its compounds. Note that the transitive verb *dasu* generally carries volitionality and it occurs with adverbs which show emotion:

- (25) a. Taro-ga tanoshisooni koe-o das-u.
 Taro-Nom cheerfully voice-Acc emit-Pre
 ‘Taro emits his voice cheerfully.’
- b. Taro-ga yorokonde hon-o das-u.
 Taro-Nom willingly book-Acc publish-Pre
 ‘Taro publishes a book willingly.’
- c. Taro-ga iyaiya tegami-o das-u.
 Taro-Nom reluctantly letter-Acc send-Pre
 ‘Taro sends a letter reluctantly.’

The sentences in (25) illustrate that the independent morpheme *dasu* carries the feature of volitionality. Moreover, *dasu* itself can occur with *te-morau*

‘have’:

- (26) a. Taro-ga piano-no oto-o
Taro-Nom piano-Gen sound-Acc
Hanako-ni dashi-te-mora-u.³
Hanako-Dat emit-Conj-have-Pre
‘Taro has Hanako emit the sound of the piano.’
- b. Taro-ga hon-o Hanako-ni dashi-te-mora-u.
Taro-Nom book-Acc Hanako-Dat publish-Conj-have-Pre
‘Taro has Hanako publish a book.’
- c. Taro-ga tegami-o Hanako-ni dashi-te-mora-u.
Taro-Nom letter-Acc Hanako-Dat send-Conj-have-Pre
‘Taro has Hanako send a letter.’

However, *dasu*-compounds that have the unaccusative V1s do not occur with either emotional adverbs or *te-morau* ‘have’; the sentences below demonstrate that they are ungrammatical since the morpheme *dasu* does not affect its volitionality on the V1s. (Note that we add one agent NP to show causative meanings in the sentences with *te-morau* ‘have’):

- (27) *Chi-ga hootai-kara itaitasooni shimi-das-u.
blood-Nom bandage-from painfully soak-dasu-Pre
‘[lit.] The blood oozes [seeps] out from the bandage painfully.’
- (28) *Taro-ga chi-ni hootai-kara shimi-dashi-te-mora-u.
Taro-Nom blood-Dat bandage-from soak-dasu-Conj-have-Pre
‘[lit.] Taro has blood ooze [seep] out from the bandage.’
- (29) *Hon-ga tana-kara tanoshisooni seri-das-u.
book-Nom shelf-from cheerfully compete-dasu-Pre
‘[lit.] The book cheerfully sticks out from the shelf.’
- (30) *Taro-ga hon-ni tana-kara seri-dashi-te-mora-u.
Taro-Nom book-Dat shelf-from compete-dasu-Conj-have-Pre
‘[lit.] Taro has the books stick out from the shelf.’
- (31) *Kugi-ga ita-kara iyaiya tobi-das-u.
nail-Nom board-from reluctantly project-dasu-Pre
‘[lit.] The nail projects from the board reluctantly.’
- (32) *Taro-ga kugi-ni ita-kara tobi-dashi-te-mora-u.
Taro-Nom nail-Dat board-from fly-dasu-Conj-have-Pre
‘[lit.] Taro has the nail project from the board.’

- (33) *Kawa-ga yama-kara tanoshisooni nagare-das-u.
 river-Nom mountain-from happily flow-dasu-Pre
 ‘[lit.] The river flows out from the mountain happily.’
- (34) *Taro-ga kawa-ni yama-kara nagare-dashi-te-mora-u.
 Taro-Nom river-Dat mountain-from flow-dasu-Conj-have-Pre
 ‘[lit.] We have the river flow out from the mountain.’

Thus, the unaccusativity V1s in the *dasu*-compounds above cannot occur with adverbs which denote emotions and *te-morau* ‘have’; these *dasu*-compounds do not trigger volitionality despite the fact that *dasu* generally possesses it. At the same time, none of the compounds above are transitive while *dasu* itself is transitive as an independent verb. Thus, when the V1s are unaccusative, the morpheme *dasu* does not affect transitivity or the non-volitional meanings of the V1s in its compounds.

If we test the other data of *dasu*-compounds where the V1s are either transitive or unergative verbs, all the V1s in these *dasu*-compounds keep their original transitivity or unaccusativity even after amalgamating with *dasu*. Accordingly, *dasu* does not affect the argument structures of the V1s at all and shows fewer syntactic properties than the independent transitive *dasu* verb does.

Based on the results here, this paper calls *dasu* in lexical compounds “a bound verb” since the morpheme *dasu* does not have its argument structure and behaves like a suffix in Japanese, but still carries tense along with certain interpretations. This shows that *dasu* in its compounds undergoes grammaticalization.

3. Semantic properties of *dasu*-compounds

We will examine the semantic properties of *dasu*-compounds in this section. First, we will discuss different interpretations with respect to the morpheme *dasu*. Second, we will test the aspectual properties of *dasu*

and its compounds and analyze whether the *dasu* morpheme affects the aspectual properties of the V1s.

3.1. An interpretation of *dasu* with ‘be out; come out’

Let us observe the interpretations which *dasu* denotes carefully. As mentioned previously, *dasu* has two main interpretations. One is (1) ‘be out; come out’ and the other is (2) ‘begin’. When it has the former interpretation, we can further subcategorize *dasu*-compounds as follows. In the data, the transitivity and unaccusativity are specified to see whether or not the syntactic properties of the V1s are affected:

- (35) Be out; come out; appear
- a. omoi-das-u (transitive + *dasu*) -> transitive
think-dasu-Pre
‘remember; recall; recollect; be reminded (of)’
 - b. nagare-das-u (unaccusative + *dasu*) -> unaccusative
flow-dasu-Pre
‘flow out; leak (out); seep’
 - c. nige-das-u (unergative + *dasu*) -> unergative
escape-dasu-Pre
‘run away; flee; escape; sneak away; evade [shirk]; back out (of)’
- (36) Go out; leave
- a. kogi-das-u (transitive + *dasu*) -> transitive
row-dasu-Pre
‘leave by boat’
 - b. nori-das-u (unergative + *dasu*) -> unergative
get.on-dasu-Pre
‘start; leave; set sail; set about; start; go (into); enter’
- (37) Produce; develop
- a. umi-das-u (transitive + *dasu*) -> transitive
produce-dasu-Pre
‘develop; produce’

- b. tsukuri-das-u (transitive + dasu) -> transitive
make-dasu-Pre
'make; create; manufacture; produce'
- (38) Find; discover
 - a. mitsuke-das-u (transitive + dasu) -> transitive
find-dasu-Pre
'find out; discover'
 - b. sagashi-das-u (transitive + dasu) -> transitive
search-dasu-Pre
'find; locate (*a person*); hunt out; discover'
- (39) Send; submit
 - a. okuri-das-u (transitive + dasu) -> transitive
send-dasu-Pre
'send; launch; see (*a person*) off'
 - b. tsumi-das-u (transitive + dasu) -> transitive
pile-dasu-Pre
'ship; send; forward'
- (40) Expose; reveal; show
 - a. utsushi-das-u (transitive + dasu) -> transitive
describe-dasu-Pre
'expose; show; describe'
 - b. egaki-das-u (transitive + dasu) -> transitive
describe-dasu-Pre
'describe (*a thing*); express (*a thing*); expose (*a figure*)'
 - c. terashi-das-u (transitive + dasu) -> transitive
light-dasu-Pre
'light up (*a thing*) to expose it'
- (41) Give; make; offer; propose
 - a. kashi-das-u (transitive + dasu) -> transitive
lend-dasu-Pre
'lend (*a thing*) out'
 - b. sashi-das-u (transitive + dasu) -> transitive
give-dasu-Pre
'present; submit; tender'

- (42) Push; force; thrust out
- a. oshi-das-u (transitive + dasu) -> transitive
push-dasu-Pre
'push [force, thrust] out; launch'
 - b. tsuki-das-u (transitive + dasu) -> transitive
thrust-dasu-Pre
'thrust [push; throw] out; stick (a thing) out'
 - c. nori-das-u (unergative + dasu) -> transitive
get.on-dasu-Pre
'lean out'
- (43) Eject
- a. oi-das-u (transitive + dasu) -> transitive
drive.away-dasu-Pre
'drive [send; thrust] out; evict; dismiss; fire'
 - b. keri-das-u (transitive + dasu) -> transitive
kick-dasu-Pre
'kick out'
- (44) Take out; extract; select
- a. erabi-das-u (transitive + dasu) -> transitive
select-dasu-Pre
'select (a thing)'
 - b. tasuke-das-u (transitive + dasu) -> transitive
help-dasu-Pre
'help (out of); rescue (from)'
 - c. hakobi-das-u (transitive + dasu) -> transitive
carry-dasu-Pre
'carry out'
 - d. mochi-das-u (transitive + dasu) -> transitive
take.out-dasu-Pre
'take out; remove'

Accordingly, we can summarize that *dasu* with the meaning of 'be out; come out' denotes an outward movement of an object. Again, note that none of the V1s in these *dasu*-compounds change their transitivity or unaccusativity except *nori-dasu* 'lean out' in (42c).⁴ With the data above, we can conclude that syntactic properties of the V1s are not affected.

3.2. Aspectual properties of *dasu*

In this section, we will analyze the aspectual properties of *dasu*-compounds. We will utilize the aspectual test of Toratani (1998) in order to examine the properties of both the V1s and their *dasu*-compounds:

Table 1 Diagnostic tests for determining verb classes of *dasu*-compounds

	Criterion showing aspectual classes of verbs	1. <i>for</i> -test (occurs with <i>-san-jikan</i>)	2. <i>in</i> -test (occurs with <i>-san-jikan de</i>)	3. <i>owaru</i> -test (forms a compound with <i>owaru</i> 'finish')	4. occurs with <i>yukkuri</i> 'slowly'	5. occurs with <i>jojo-ni</i> 'gradually'	6. <i>te-iru</i> test (compatible with <i>te-iru</i> 'be ~ing')
(1)	transitive <i>omou</i> 'think' (activity)	Yes	No	No	No	No	Yes
	transitive <i>omoi-dasu</i> 'remember' (accomplishment)	No	Yes	N/A	Yes	Yes	Yes
(2)	unaccusative <i>nagareru</i> 'flow' (activity)	Yes	No	No	Yes	Yes	Yes
	unaccusative <i>nagare-dasu</i> 'flow out' (accomplishment)	No	Yes	N/A	Yes	No	Yes
(3)	unergative <i>nigeru</i> 'escape' (activity)	Yes	No	Yes	Yes?	No	Yes
	unergative <i>nige-dasu</i> 'run away' (accomplishment)	No	Yes	N/A	Yes	Yes	Yes
(4)	transitive <i>kogu</i> 'row' (activity)	Yes	No	Yes	Yes	No	Yes
	transitive <i>kogi-dasu</i> 'leave by boat' (accomplishment)	No	Yes	N/A	Yes	Yes	Yes
(5)	unergative <i>noru</i> 'ride' (activity)	Yes	No	Yes	Yes	No	Yes
	unergative <i>nori-dasu</i> 'leave; set sail' (accomplishment)	No	No?	N/A	Yes	Yes	Yes
(6)	transitive <i>umu</i> 'produce' (accomplishment)	No	Yes	Yes	Yes	No	Yes
	transitive <i>umi-dasu</i> 'develop' (accomplishment)	No	Yes	N/A	Yes	Yes	Yes
(7)	transitive <i>mitsukeru</i> 'find' (activity)	No	No	Yes	No	Yes	Yes
	transitive <i>mitsuke-dasu</i> 'find out' (accomplishment)	No	Yes	N/A	Yes	Yes	Yes

(8)	transitive <i>okuru</i> 'send' (activity)	Yes	No	Yes	Yes	No	Yes
	transitive <i>okuri-dasu</i> 'send' (accomplishment)	Yes	No	N/A	No	No	Yes
(9)	transitive <i>egaku</i> 'describe' (active-accomplishment)	Yes	Yes/No	Yes/No	Yes	Yes	Yes
	transitive <i>egaki-dasu</i> 'describe' (accomplishment)	Yes	Yes	N/A	No	Yes	Yes
(10)	transitive <i>kasu</i> 'lend' (activity)	Yes	No	Yes	No	No	Yes
	transitive <i>kashi-dasu</i> 'lend out' (accomplishment)	Yes	Yes	N/A	No	No	Yes
(11)	transitive <i>osu</i> 'push' (activity)	Yes	No	Yes	Yes	No	Yes
	transitive <i>oshi-dasu</i> 'push out' (accomplishment)	Yes/No	Yes	N/A	Yes	Yes	Yes
(12)	transitive <i>ou</i> 'drive away' (accomplishment)	Yes	No	Yes	Yes	No	Yes
	transitive <i>oi-dasu</i> 'drive out' (accomplishment)	No	Yes	N/A	Yes	Yes	Yes
(13)	transitive <i>erabu</i> 'select' (accomplishment)	No	Yes	Yes	Yes	Yes	Yes
	transitive <i>erabi-dasu</i> 'select' (accomplishment)	No	Yes	N/A	Yes	Yes	Yes

OK = The sentence is grammatical , semantically normal.

bad = The sentence is ungrammatical, semantically anomalous.

d.n.a. = The test does not apply to verbs of this class.

As we can see from the results in the table, the V1s in these compounds belong to either activity or accomplishment categories. In either case, it seems that their *dasu*-compounds behave as accomplishment verbs. This shows the same result as the analysis with *komu*-compounds in Takahashi (2009); the morpheme *dasu* changes the aspectual properties of the V1s from [-telic] to [+telic]. The summary is shown in the table below:

Table 2 Aspectual relations between *dasu*-compounds and their V1s

V1s in <i>dasu</i> -compounds	<i>dasu</i> -compounds denoting 'be out; come out'
activity [-telic]	accomplishment [+telic]
accomplishment [+telic]	accomplishment [+telic]

Thus, regarding the aspectuality of *dasu* and its compounds, V1s obtain or maintain the [+telic] property after amalgamation with the morpheme *dasu*.

4. LCSs of *dasu*-compounds

This section will consider the LCSs of the problematic cases within *dasu*-compounds which do not follow the Transitivity Harmony Principle.

Among the lexical *dasu*-compounds, we will choose the cases with the combinations of the unaccusative V1s and *dasu*. Here, we assume that *dasu* is a bound verb which is a simple accomplishment verb and denotes completeness. We also apply anticausativization processes to the morpheme *dasu*. That makes it possible to combine the upper and lower level in LCSs and we can see how the morpheme *dasu* changes its conceptual interpretations.

(45) LCSs of *dasu*-compounds

- a. Chi-ga hootai-kara oohabani shimi-dashi-ta.
blood-Nom bandage-from greatly soak-dasu-Past
'Blood oozed [seeped] out from the bandage a lot.'
- a'. Amalgamation between the upper and lower level (unaccusative accomplishment structure) and the upper level (accomplishment structure)

shimiru 'soak': [_{sub}-EVENT y1 BECOME [y1 BE AT-IN z1]]
dasu 'be out': [[_{super}-EVENT x1 ACT (ON y1)] CONTROL
 [_{sub}-EVENT y1 BECOME [y1 BE AT-OUT z1]]]

-> [[super-EVENT x_1 ^ ACT (ON y)] CONTROL
 [sub-EVENT y_1 BECOME [y_1 BE AT-OUT z_1]]]
 -> [sub-EVENT y_1 BECOME [y_1 BE AT-OUT z_1]]

shimi-dasu: ‘ooze [seep] out’:

[[[sub-EVENT y_1 BECOME [y_1 BE AT-IN z_1]] AND
 [sub-EVENT y_1 BECOME [y_1 BE AT-OUT z_1]]]
 -> [sub-EVENT y_1 BECOME [y_1 BE AT-[IN AND OUT] z_1]]]

- b. Kawa-ga yama-kara ikioiyoku nagare-dashi-ta.
 river-Nom mountain-from powerfully flow-dasu-Past
 ‘The river powerfully flowed out from the mountain powerfully.’
- b'. Amalgamation between the upper and lower level (unaccusative accomplishment structure) and the upper level (accomplishment structure)

nagareru ‘flow’: [sub-EVENT y_1 MOVE]

dasu ‘be out’: [[super-EVENT x ACT (ON y)] CONTROL
 [sub-EVENT y_1 BECOME [y_1 BE AT-OUT z_1]]]

nagare-dasu ‘flow out’:

[[sub-EVENT y_1 MOVE] AND
 [[super-EVENT x_1 ACT (ON y)] CONTROL
 [sub-EVENT y_1 BECOME [y_1 BE AT-OUT z_1]]]]
 -> [[sub-EVENT y_1 MOVE] AND
 [super-EVENT x_1 ^ ACT (ON y)] CONTROL
 [sub-EVENT y_1 BECOME [y_1 BE AT-OUT z_1]]]
 -> [[sub-EVENT y_1 MOVE] AND
 [sub-EVENT y_1 BECOME [y_1 BE AT-OUT z_1]]]
 -> [sub-EVENT y_1 MOVE AND y_1
 BECOME [y_1 BE AT-OUT z_1]]]

The LCSs along with *dasu*-compounds above provide the evidence that the verbal morpheme *dasu* is undergoing a grammaticalization process changing from an independent verb to a bound morpheme with its argument structure being lost in the process.

5. Directionality and telicity with *komu* and *dasu*

Finally, we will consider the relationship between the meaning of

directionality and the two verbal morphemes, *komu* and *dasu*. As mentioned in Takahashi (2009), the morpheme *komu* indicates a certain type of directionality. The morpheme *dasu* may also indicate directionality. In addition, these two morphemes are associated with some postpositional phrases which can imply directionality; *komu* triggers *ni* ‘to’ phrases, and *dasu* triggers both *ni* ‘to’ phrases and *kara* ‘from’ phrases. The examples of *komu*-compounds and *dasu*-compounds which have these properties are shown below:

(46) with a transitive verb

- a. ie ni mochi-kom-u
house to have-komu-Pre
‘bring into the house’
- b. gakko kara ie ni mochi-das-u
school from house to have-dasu-Pre
‘take out from the school to the house’

(47) with a transitive verb

- a. ie ni hiki-kom-u
house to pull-komu-Pre
‘draw into the house’
- b. naka kara soto ni hiki-das-u
inside from outside to pull-dasu-Pre
‘draw out from the inside to the outside’

(48) with an unaccusative/unergative verb

- a. kawa ni tobi-kom-u
river to jump-komu-Pre
‘jump into the river’
- b. ie kara soto ni tobi-das-u
house from outside to jump-dasu-Pre
‘jump from the house to the outside’

(49) with an unergative verb

- a. ie ni nige-kom-u
house to escape-komu-Pre
‘run into the house to hide’

- b. ie kara soto ni nige-das-u
 house from outside to escape-dasu-Pre
 ‘run away from the house to the outside’

One of the differences between *komu* and *dasu* is that *komu* is connected to an inward or incoming event whereas *dasu* is connected to an outward or outgoing event. In all cases, it seems that these morphemes inherently possess the meanings of directionality. In addition, this directionality can be extended by the event that the first verbal morphemes describe, especially when the V1s are motion verbs.⁵

Also, we can assume that the interpretation of directionality also affects the aspectual properties in a certain way as we saw in Tables 1 and 2 in the previous section. These morphemes *komu* and *dasu* are inherently [+telic]. That is why lexical compounds with these morphemes can belong to the accomplishment category after their amalgamation with V1s as shown in the tables.⁶

6. Concluding remarks

This paper has demonstrated that *dasu*-compounds show similar syntactic and semantic properties as *komu*-compounds do as shown in Takahashi (2009). *Dasu* in its compounds with the interpretation ‘be out; come out’ originally has transitivity and its argument structure, but these syntactic properties can be bleached out in its compounds. We concluded that it is because *dasu* in its lexical compounds with the interpretation ‘be out; come out’ undergoes grammaticalization and changes from an independent verb to a bound verb.

Regarding the aspectual properties of *dasu*, we have the same result as the morpheme *komu* showed; *dasu* triggers [+telic] interpretations. Finally, we discussed the idea that the two morphemes, *dasu* and *komu* originally

indicate directionality and therefore add the interpretation of directionality to the VIs in their compounds.

In sum, the morpheme *dasu* in lexical compounds does not behave like a single verb. It may change from an independent verb to a bound verb that has lost its syntactic argument structure. Accordingly, it might be plausible to say that the morpheme *dasu* can be as productive as another morpheme *komu* (Takahashi 2009) because it has suffix-like properties and freely attaches to various kinds of verbs.

Notes

1. This is a revised version of one chapter in Takahashi (2006). I am grateful to Dr. John Haig at the University of Hawaii at Manoa for giving me important feedback on this paper. Moreover, I thank Mr. Conrad Bucsics at the Nagoya University of Foreign Studies for his editorial help. Needless to say, all the mistakes and shortcomings in this paper are mine.
2. It seems that *tobu* ‘fly’ can be either an unergative or unaccusative verb.
 - (i) Hikooki-ga New York-made tob-u. (unaccusative)
 plane-Nom New York-to fly-Pre
 ‘The plane flies to New York.’
 - (ii) Taro-ga New York-made tob-u. (unergative)
 Taro-Nom New York-to fly-Pre
 ‘Taro flies to New York.’

When we apply the *te-morau* ‘have’ test to this data, the result shows the difference between (i) and (ii):

- (i') *Hanako-ga hikooki-ni New York-made ton-de-mora-u. (unaccusative)
 Hanako-Nom plane-Dat New York-to fly-Conj-have-Pre *tobu*
 ‘[lit.] Hanako has the plane fly to New York.’
- (ii') Hanako-ga Taro-ni New York-made ton-de-mora-u. (unergative *tobu*)
 Hanako-Nom Taro-Dat New York-to fly-Conj-have-Pre
 ‘Hanako has Taro fly to New York.’

3. The treatment of the *te*-form seems to be controversial and we treat it as a conjunction in this discussion.
4. It seems that *noru* in *nori-dasu* ‘lean out’ behaved differently from *noru* ‘get on’ historically. The former *noru* originally had the meaning of leaning (Daijirin 2005). Although we use the same Chinese character currently for these two types of *noru*, we need to distinguish between them. Possibly, *nori-dasu* behaves as a transitive compound rather than an intransitive compound because of this.
5. On the other hand, it is important to note that there are some cases in which VIs do not involve directionality but appear in lexical compounds with *komu*. The VIs in lexical compounds, such as *abareru* ‘storm into,’ *donaru* ‘shout,’ and *shaberu* ‘chat’ are examples of this case. These VIs do not maintain directionality. However, certain directionality interpretations do occur with these VIs once these VIs are amalgamated with *komu*. We could assume that it is because the morpheme *komu* has inherent meanings of directionality.
6. Related to this, we can see that *komu* and *dasu* amalgamate with verbal morphemes which denote a simple intentional action. This means that the interpretation of directionality along with an intentional action are required before the VIs combine with these morphemes in their compounds.

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